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(54) BUFFERS

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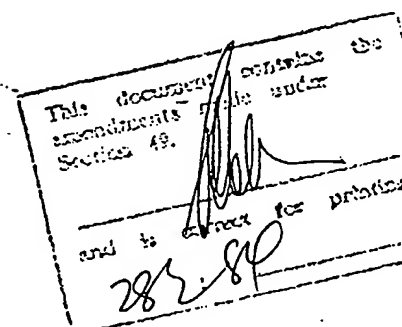
(74) CU

(56)	50931/73	462782	88.9, 93.9
	28955/71	449619	93.9
	10050/66		57.8, 78.1, 93.9

(57) Claim 1. A gunwale strip for boats comprising:-
 an extruded body member of resilient polymeric material,
 said body member including one or more hollow channels extending
 longitudinally within said body member and an open channel
 extending longitudinally of an outer surface of said body member;
 and,
 an elongate strip member releasably engageable within said
 open channel, said strip member having at least two normally
 exposable fluorescent surfaces whereby said strip may be
 disengaged from said open channel and re-engaged to expose a fresh
 fluorescent surface.

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Queensland, Australia.PETTY PATENT SPECIFICATION FOR THE INVENTION ENTITLED:

BUFFERS

The following statement is a full description of the invent
including the best method of performing it known to us:

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THIS INVENTION is concerned with decorative and/or operative buffer members incorporating a visually enhanced warning device.

Buffer strips or members are provided on many objects to prevent or ameliorate damage either to the object or another object coming into contact with the first object. Examples of such buffers include buffers or fenders for wharves, jetties and the like, buffers in the form of gunwhale members for boats, bumper bar strips for motor vehicles or rubbing strips for walls in buildings and the like.

Such protective buffers may take the form of timber, metal, plastics or rubber strips and may include visual enhancement as a warning means or to enable ready visual detection, particularly under conditions of poor visibility. Such visual enhancement means may comprise a surface finish such as paint in a bright colour to permit ready visual detection. In particular the use of paint or surface finishes incorporating fluorescent pigments or dyes has recently become popular as these are readily discernable under both good and poor visibility conditions.

Fluorescent pigments or dyes however possess a number of major disadvantages. Firstly, such pigments or dyes are extremely expensive compared to non-fluorescent pigment or dyes. Secondly such pigments or dyes possess very poor light fastness, weatherability and resistance to heat. Thus for buffer surfaces, surface coatings such as paints etc. incorporating fluorescent pigments or dyes are quite unsatisfactory due to their high initial cost, low effective life and poor resistance to scuffing and abrasion (as with most surface finishes) on buffer surfaces.

In most cases it would otherwise be desirable to incorporate a fluorescent pigment or dye into a flexible or resilient plastics or rubber buffer member to obtain a "solid" colour unable to be scratched or abraded from a surface likely to undergo physical impacts. For extruded or moulded plastics

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or rubber buffer members this is impractical. For cost reasons most compounded rubber materials incorporate a carbon black pigment as a cost reducing filler and as a means for enhancing physical properties. Accordingly, the effectiveness of incorporating a fluorescent and generally light coloured pigment is substantially reduced.

It is possible to manufacture flexible or resilient polyvinyl chloride buffer members incorporating fluorescent pigments or dyes. One of the problems associated with the manufacture of such products arises from the degradation of the fluorescent pigments or dyes during an extrusion or moulding operation and thus excess levels of pigment or dye must be used to compensate therefor. Possibly the main problem is that even when a satisfactory (albeit expensive) polyvinyl chloride product is produced, it has a very limited effective life span due to the poor light fastness of the fluorescent pigments or dyes. This problem is often exacerbated by degradation of the polyvinyl chloride polymer, particularly under outdoor exposure conditions.

It is an aim of the present invention to overcome or alleviate the problems of such prior art plastics or rubber buffer members incorporating a fluorescent colorant.

According to the invention there is provided a gunwale strip for boats comprising:-

- an extruded body member of resilient polymeric material, said body member including one or more hollow channels extending longitudinally within said body member and an open channel extending longitudinally of an outer surface of said body member; and,
- an elongate strip member releasably engageable within said open channel, said strip member having at least two normally exposable fluorescent surfaces whereby said strip may be disengaged from said open channel and re-engaged to expose a fresh fluorescent surface

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~~aperture to receiveably locate said replaceable member.~~

Preferably said replaceable member incorporates two or more exposable surfaces embodying a fluorescent colorant.

5 Various embodiments of the invention will now be described with reference to the accompanying drawings.

In FIG 1 the buffer member comprises an extruded plastics metal mounting strip 1 having a base 2 adapted for mounting on a planar surface by any suitable means such as nails, screws, rivets or the like or an adhesive composition. A protrusion in the form of a T-shaped member 3 extends from base 2. Attached to the T-shaped protrusion 3 is a flexible hollow plastics buffer member 4 having a recessed aperture 5 with a cross sectional shape and dimensions generally complementary to the outmost portion of member 3. Buffer member 4 is comprised of an extruded flexible or resilient plastics material such as polyvinyl chloride and incorporates a fluorescent pigment or dye.

When the fluorescent pigment or dye incorporated in buffer member 4 fades or otherwise becomes ineffective due to adverse conditions such as outdoor weathering, the buffer member may be simply removed from the mounting member by sliding along the T-shaped protrusion or simply by peeling it off. A fresh buffer member may be replaced by the reverse procedure.

25 In one alternative embodiment of the device illustrated in FIG 1, base member 2 may comprise a right angle member for mounting on a corner surface. In another alternative embodiment, member 4 could comprise the mounting member and member 1 (incorporating a fluorescent pigment or dye) could become the replaceable member.

FIG 2 illustrates yet another embodiment of the invention. Mounting member 6 comprises a flexible plastics extrusion having a generally U-shaped cross section, the legs 7 of which member are hollow to improve shock absorbing qualities and to facilitate economies in material usage. Angled ribs 8

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are provided on the opposed inner surfaces of legs 7 to assist in frictional engagement with a flange or rib-like mounting surfaces such as the hull/deck joint of a boat. On the outer face 9 of the buffer member 6 is a channel-like aperture 10 having opposed lips 11 to retain a removeable fluorescent strip 12. Strip 12 may comprise a plastics extrusion incorporating a fluorescent pigment or dye or it may comprise a plastics or metal strip having a surface coating incorporating a fluorescent pigment or dye.

Instead of simply discarding the replaceable strip 12 when the outer surface fades due to weathering, the strip may be reversed and replaced to expose a fresh unweathered fluorescent surface.

FIG 3 illustrates a further development of the embodiment shown in FIG 2 in which the replaceable strip 13 comprises four faces which may be sequentially exposed to reveal a fresh fluorescent surface as the preceding face fades. It will be understood that other polygonal cross sectional shapes may also be exposed such as triangular, hexagonal, octagonal etc. If required base member 14 may include mounting apertures 15.

FIG 4 illustrates yet another embodiment wherein the mounting member 16 comprises a generally U-shaped member having opposed hollow legs 17 to enhance shock absorbing qualities. The base of member 16 may include mounting aperture 18 if required. The opposed inner faces of legs 17 include rearwardly inclined ribs 19 which frictionally engage with mating ribs 20 on the outer surfaces of the legs 21 of a generally U-shaped replaceable fluorescent member 22.

FIG 5 illustrates a variation of the embodiment shown in FIG 4 in which fluorescent replaceable member 23 securely engages in mounting member 24.

The various embodiments of the invention may be suitable as a visual enhancement aid as well as a buffer strip particularly where conditions of poor visibility and heavy

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traffic conditions prevail. Examples of such uses may include boat gunwhales, vehicle bumper and side rubbing strips, gate posts, car park and garage wall and corner buffers, wall buffers for lifts and corridors in buildings, vehicle door edgings, handles for doors and appliances, edging or frames for signs and hoardings, roadside posts, signs and fencing etc.

It can be clearly seen from the foregoing description that the present invention exhibits an immense range of utilitarian purposes. The ready replacement of faded fluorescent surfaces in a relatively inexpensive manner overcomes the necessity of frequent repainting with fluorescent paints or the total removal and replacement of buffer strips incorporating a "solid" fluorescent colour.

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THE CLAIM DEFINING THE INVENTION IS AS FOLLOWS:-

1. A gunwale strip for boats comprising:-

an extruded body member of resilient polymeric material, said body member including one or more hollow channels extending longitudinally within said body member and an open channel extending longitudinally of an outer surface of said body member; and,

an elongate strip member releasably engageable within said open channel, said strip member having at least two normally exposable fluorescent surfaces whereby said strip may be disengaged from said open channel and re-engaged to expose a fresh fluorescent surface.

DATED THIS SIXTEENTH DAY OF FEBRUARY, 1984.

MEYERS TAYLOR PTY. LTD.

By its Patent Attorneys,

G.R. CULLEN & COMPANY.

[Handwritten signature]
28/2/84

FIG. 1

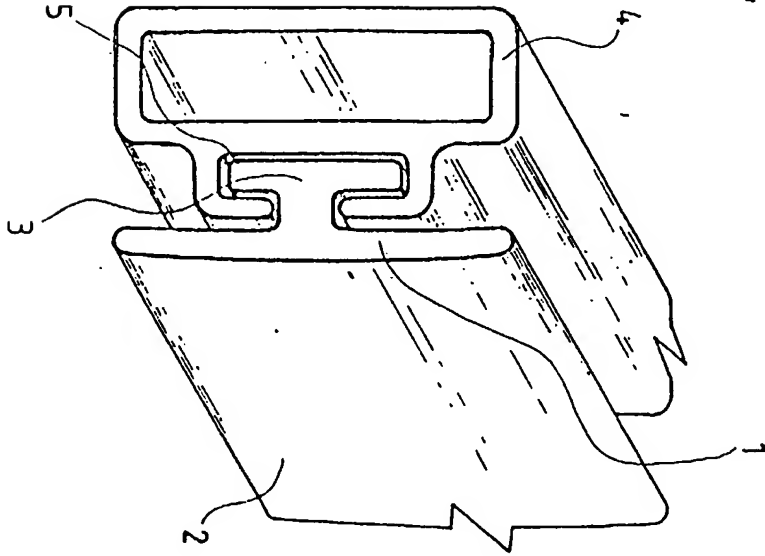


FIG. 2

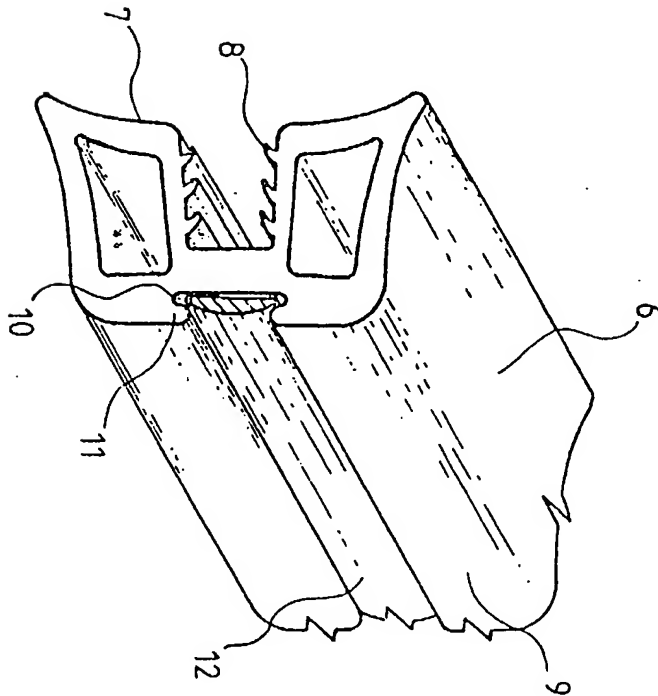


FIG. 3

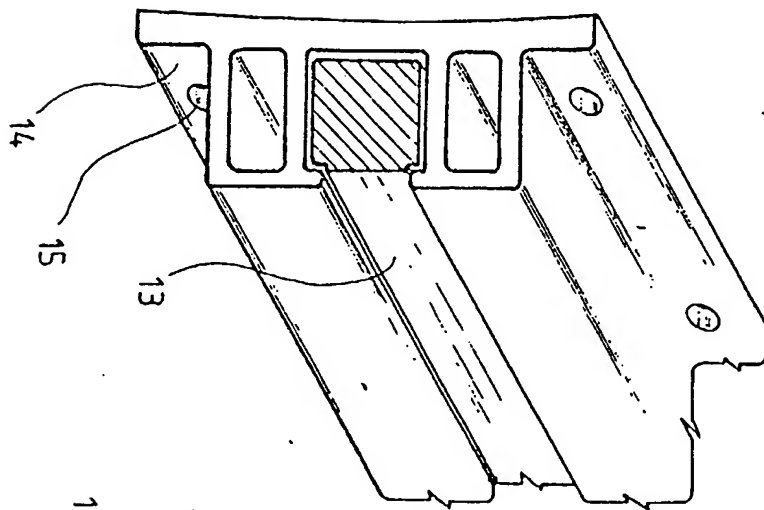


FIG. 4

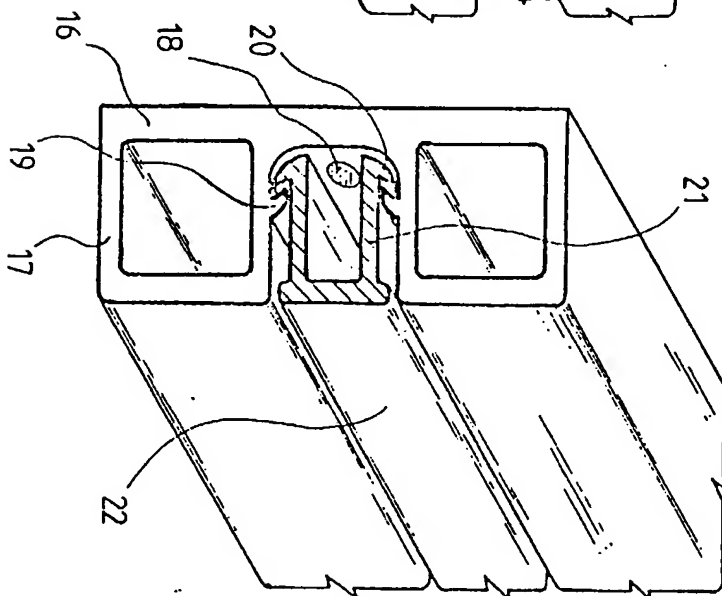


FIG. 5

